Northwest Air Data Exchange
Vendor Questions
November 22, 2005

This document provides answers to question posed by email and a few posed at the pre-bid conference on November 17, 2005. Additional documents will be posted as answers are available.

Q: **Section 1.3** provides a list of analyzers used by Ecology and its partners. Do all analyzers in the list need to be supported via RS232.

A: If the analyzer has a RS232 port, Ecology wants to connect via this port.

Q: **Section 1.3** refers to a document named Telemetry072804.pdf. This document was not included in any documents.

A: The document may be downloaded at http://www.ecy.wa.gov/programs/air/nwads_rfp.htm

Q: **Section 3.1.3** states, the vendor's application must be accessible through the Internet using https://." Which does this include? Data Logger? Central Station? Report design? Final reports?

A: Ad hoc report design is not a mandatory requirement. If the vendor cannot provide the ad hoc reporting capability via the Internet, the vendor may still submit a proposal to Ecology. Ecology wishes to access data loggers and the central station from any other location. This is very important to us. If there are cheaper, comparable alternatives to the Internet that provide the same functionality/access, Ecology would entertain them. Reports should be assessable via the Internet.

Q: **Section 3.1.3**, states, "Client-Server applications are not allowed".
Does this include the data logger? If so what is the rational behind preventing the GUI for a data logger from being separate to the data logging   process itself? Can you provide a detailed explanation of your definition of 'Client/Server'?

A: Ecology does not want to purchase a client/server application of the historical type (i.e. multiple copies of the client application must be individually/separately installed on many client machine i.e. the "rich client"). It would be very costly for us to maintain. Ecology will allow "smart clients" if we can centralize distribution (i.e. we can push system/software updates to remote locations). Applications designed to run as services or as a single instance will be permitted as rich client applications. VPN users are allowed.

Q: Section 3.14 addresses a public web site. Is it correct to assume that the comment in section 3.14.2 implies that Ecology may opt not to use the Public Web Site offered by a vendor?

A: Ecology could conceivable opt not to use a public web site offered by a user. However, this would not be likely. Ecology may want to supplement the vendor's website with its own web products and Ecology would very much prefer being able to add links from the vendor provided web site to the additional pages Ecology develops.

Q: **Section 3.1.8**, states that Ecology must be able to make system modifications to code and database tables. Will Ecology reconsider this requirement?

A: Ecology continues to require, as mandatory, that it be allowed to alter the table structure of the database. Ecology will not require, as mandatory, access to the system code. Additional points will be given to vendors who do provide access to the code.

Q: **Section 3.3.5**-Ecology wishes to purchase a modified commercial off-the shelf-system (COTS). Given that extensive and costly modifications would be required to an existing COTS application in order to comply 100% with this requirement, will Ecology consider allowing the data exchange processes of the system to adhere to these standards but allow the internal commercial database implementation to remain as developed by the vendor?

A: Ecology is agreeable. Additional points will be given to any vendor who can meet the requirement as originally written.

Q: **Section 3.4.1-**The last sentence of the requirement is not complete.

A: The last sentence should read, "The vendor's response must state which third-party products can access the production database and tables."

Q: **Section 3.4.4-**With respect to processes that allow for data to be manually loaded in to the RAW database: As written, this requirement would prohibit even administrators with the highest security from inserting data to the RAW database. Is this Ecology's intent?

A: Ecology wishes to protect original data. The system should provide for granting insert rights but not update or delete to the RAW database/dataset.

Q: **Section 3.10.1.2** states, "The graphical Data Editor should allow a user, with the proper access rights, to create and store annotations pertaining to the data on the graphical display." Should such annotations be reported on a per data point basis or on a range of data point basis?

A: It should be based on a range of data points.

Q: Section 3.10.1.12 states, "The Graphical Data Editor should allow a user, with the proper access rights, to create and store annotations pertaining to the data on the graphical display." Should such annotations be recorded on a per data point basis, or on a range of data points basis?

A: Annotations should be recorded for a given range of data.

Q: **Section 3.10.2.1** indicates the desirability of a web based graphing tool like that implemented at Puget Sound. http://www.pscleanair.org/airq/airqgraphing.aspx. Please

state if the code for this tool will be made available to the vendor for possible inclusion in the system.

A: The Puget Sound Clean Air Agency has stated that it will provide the code for this tool to the selected vendor. As this tool was developed using taxpayer dollars, it should be noted that the selected vendor may not charge Ecology for the tool itself. It may charge Ecology for integration costs, bug fixes that the vendor discovers and corrects, etc. Costs associated with this requirement should be clearly delineated by the vendor.

Q: **Section 3.10.2.3** states "specifically, the increments of 1-hour, 8-hour, and 24-hour averages and AQI." What is an AQI average period?

A: The AQI is not an averaging period. The AQI that is mentioned depends on the parameter. If ozone were the parameter, in addition to displaying the ozone 1-hr, 8-hr, and 24-hr traces, the AQI trace would show the 8-hour trace in AQI units, not in ppb.

Q: **Section 3.11.1** states, "The central system must provide for control of gas dilution systems, solenoids, and relays for scheduled and remotely induced multi-level, automated precision and calibration checks of ambient air quality monitors via the station data logger" In a solution where the data logger automatically schedules and handles these functions, is it sufficient to have access to manually initiate these via the central system interface? If not please explain how you would expect the central system and data logger to handle conflicting calibration demands.

A: Ecology is asking for the ability to program the data logger such that it will automatically trigger and carry out full calibration checks on a schedule that is defined by the user. These automated calibrations would likely occur very early in the morning much the way our current ones do. Additionally, we also must have the ability to manually trigger a precision or full calibration at any time (the manual checks will be done primarily during normal working hours) from any location via the internet or from the monitoring site itself. Because the manual and automatic calibrations happen at different times and we will know the times of automated checks, there should be no conflict.

That said, we believe it is sufficient to have access to manually initiate these precision and calibration checks via the central system interface as long as we can access that central system interface from any location via the internet.

Q: Is it correct to assume that the comment in **Section 3.14.2** implies that Ecology may opt not to use the Public Web Site offered by a vendor?

A: Providing a Public Web Site is not a mandatory. If the vendor provides a public website, it must calculate AQI according to the EPA guidelines. Ecology would not use a vendor public page if calculations were not according to EPA guidelines. This would be a decision we would make upon considering the vendor's offering. Our current public web page is not consistent with agency policy and we must replace it. As this requirement is not mandatory, Ecology could choose not to use the vendor's public web site offering.

Q: With respect to **Section 3.14.6**-AirNow Automated Export specifies export of AQI values. Please provide an example. Should the max AQI for the station be reported or should the AQI for all relevant AQI parameters be reported? Is this actually an element desired from the public web site? It seems more suited to be part of a scheduled reporting service.

A: The title of this section is in error. It should read 3.14.6-AQI Automated Export. The requirement text is correct. The data export should be generated based on values in the database and should be an automated (scheduled) file which may go to a website (to be requested) or to a FTP site. The AQI value reported should be the AQI for all relevant AQI parameters. This report would be use by Ecology to provide hourly AQI values to external entities such as TV and radio stations, university researchers, etc.

Q: **Section 3.15.x**-General Reporting Query. For each of example reports, is this the exact format required or does the report just have to include the same information?

A: Reports need only to include the same information. The exact format is not required.

Q: **Section 3.15.8** refers to hourly creation of files in AQS format for use in populating external databases. The example format is the old 8 values per line record format that was replaced in the Reengineered AIRS system. Please expand on this requirement and the external databases to be populated by these methods. Would not it be better to exchange data via AQS XML schema?

A: Ecology provided the incorrect format in the RFP. Ecology agrees it would be better to exchange data via the AQS XML schema. Ecology provides data to several universities for inclusion into meteorological and dispersion modeling. Ecology will check with these entities to determine if and when they can accept the AQS XML schema. The correct format is:

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RD|I|53|053|0012|44201|1|1|007|056|20050101|00:00|0.025||||||||||||||||
RD|I|53|053|0012|44201|1|1|007|056|20050101|01:00|0.027||||||||||||||||
RD|I|53|053|0012|44201|1|1|007|056|20050101|02:00|0.027||||||||||||||||
RD|I|53|053|0012|44201|1|1|007|056|20050101|03:00|0.034||||||||||||||||
RD|I|53|053|0012|44201|1|1|007|056|20050101|04:00|0.033||||||||||||||||
RD|I|53|053|0012|44201|1|1|007|056|20050101|05:00|0.029||||||||||||||||
RD|I|53|053|0012|44201|1|1|007|056|20050101|06:00|0.028||||||||||||||||
RD|I|53|053|0012|44201|1|1|007|056|20050101|07:00|0.023||||||||||||||||
RD|I|53|053|0012|44201|1|1|007|056|20050101|08:00|0.025||||||||||||||||
RD|I|53|053|0012|44201|1|1|007|056|20050101|09:00|0.026||||||||||||||||
RD|I|53|053|0012|44201|1|1|007|056|20050101|10:00|0.027||||||||||||||||
RD|I|53|053|0012|44201|1|1|007|056|20050101|11:00|0.026||||||||||||||||
RD|I|53|053|0012|44201|1|1|007|056|20050101|12:00|0.025||||||||||||||||
RD|I|53|053|0012|44201|1|1|007|056|20050101|13:00|0.024||||||||||||||||
RD|I|53|053|0012|44201|1|1|007|056|20050101|14:00|0.023||||||||||||||||
RD|I|53|053|0012|44201|1|1|007|056|20050101|15:00|0.022||||||||||||||||
RD|I|53|053|0012|44201|1|1|007|056|20050101|16:00|0.021||||||||||||||||
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RD|I|53|053|0012|44201|1|1|007|056|20050101|17:00|0.021|||||||||||||||
RD|I|53|053|0012|44201|1|1|007|056|20050101|18:00|0.020|||||||||||||||
RD|I|53|053|0012|44201|1|1|007|056|20050101|19:00|0.019|||||||||||||||
RD|I|53|053|0012|44201|1|1|007|056|20050101|20:00|0.018|||||||||||||||
RD|I|53|053|0012|44201|1|1|007|056|20050101|21:00|0.018|||||||||||||||
RD|I|53|053|0012|44201|1|1|007|056|20050101|22:00|0.019|||||||||||||||
RD|I|53|053|0012|44201|1|1|007|056|20050101|23:00|0.019|||||||||||||||
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Q: **Section 3.15.8** states, "Every hour the system must automatically create a file of the most recent hourly data for all active site/parameters in AQS format for the current and previous day to be used for populating external databases." Is the report to contain just the most recent hourly data or the hourly data for today and the previous day?

A: The current preference is to have the data for all hours of today and yesterday. The reason for this is that data may be recovered from a site or sites going back to the previous day. We would prefer that no special action would be required to recover the data. If this is a burdensome requirement, we might be amenable to changing it if an easy mechanism exists to get any missed data.

Q: **Section 3.15.16** states, "The system should be capable of generating an annual particulate report showing all 24-hr (daily mass concentrations)." Does the report have to have the 24-1 hour reading in a horizontal line or can they be in vertical columns?

A: The report should be similar to the one provided in the RFP; all the same data (elements) should be present on the vendor's report. It should be easy to read. Data may be displayed in whatever way the vendor wishes.

Q: **Section 3.15.32** EPA Program Support-AirNow indicates submission only of Ozone and PM data. The new guidelines for hourly AirNow submissions cover multiple parameters including meteorological data. The latest description of this format is in the document STI-902650.02-2732-FF entitled AIRNOW PROGRAM OBS FILE CONTENT, FORMAT AND REQUIREMENTS. In addition, the bullets included in this section do not appear relevant to the required. Please provide additional information on each of the bullet items and how they relate to the OBS file submission.

A: Currently Ozone and PM data are the only parameters Ecology submits to Air Now. Ecology may submit other parameters in the future. Ecology is aware of the document referenced above. All AirNow data submissions should be made according to this document. The additional bullets are in error.

Q.   **Section 3.16.1** - Will the router and DSL modem be supplied by Ecology or by the vendor?

A.   Ecology will supply the router and DSL modem per the State of Washington architecture. The vendor's solution must work within the architecture. If vendors require additional information, please let the RFP coordinator know.

Q: **Section 3.16.4** Site-Workstation/Data Logger Configuration as well as **Section 3.17.1** specifies use of Windows XP. Will other products be considered?

A: (Workstations installed at sites must use a Microsoft operating system. This may be Windows XP Professional, Windows Server 2003 Standard Edition, or Windows Server 2003 Web Edition. Other Microsoft products may be considered.

Q: **Section 3.16.4** states "Because of its strong discount buying power. Ecology will likely purchase all PC workstations." Who is responsible for support costs in the event of hardware failure(s) when hardware is found to be faulty/unreliable, especially where software support has been involved, when hardware reliability is eventually found to be at fault?

A: This section does not refer to rack mounted data loggers, but to PC workstations. Ecology will purchase hardware based on the specifications provided by the vendor. Specifications should not require a specific hardware manufacturer. Ecology will maintain a support contract the hardware manufacturer and will be responsible for facilitating support of hardware. Ecology would make every attempt to correctly assess the cause of the failure before contacting either the hardware or the software vendor. Ecology envisions that a support contract with the software vendor would accommodate the situation described above.

Q: **Section 3.16.6** states "The system should include the ability to track equipment information. Is this required to be part of the data logger, the central monitoring station, or both?

A: The vendor should understand that this section is a desirable feature and not required. If provided, Ecology would like it to reside on the central station.

Q: **Section 3.17.1** requires that the data logger acquire the 1-hour value made by the instrument whenever such a value is available. This is appropriate when the instrument only has a new representative value available on the hour. FDMS, Met One BAM and Sunset are examples. Instrument like API and TEI gaseous monitors have new value available continuously. To flag the data considering the state of the instrument calibration activity (internal or external), operator flagged data and other conditions (e.g. station temperature) that cause individual samples to be qualified for use in the creation of a 1 hour average the logger needs to sample the instrument for value, flags and mode as well as be monitoring concurrent station and sample system conditions. The instrument will not be fully aware of all these conditions.

A: Ecology believes we understand the situation. Vendors should propose a solution.

Q: **Section 3.17.3** refers to "One hour averages calculated by the instruments must be stored." Is individular part of the section a mandatory requirement or is calculation of the hourly average as describe in your following sentence sufficient to meet this requirement?

A: The entire text of Section 3.17.3 is mandatory. This section is intended to say that if serial averages are available then they should be used. It they are not available, then analog values fed to the logger would suffice.

Q: **Section 3.17.4** refers to power outages. Is this to be based on the response of the analyzer (i.e., no response means no power)? Or when data logger looses power (i.e., for a 5-minute power outage should the hourly data include a power fail flag for that data)?

A: The data logger will flag the data whenever power to the logger is interrupted for any reason, not the analyzer.

Q: **Section 3.17.4** refers to "Thresholds exceeded (including enclosure temperatures)". "Over/under range (upper/lower thresholds exceeded)" Please explain the difference between these two measures?

A: These requirements are the same.

Q: **Section 3.17.4** refers to "Equipment is disabled." Should this be selectable by instrument and/or channel?

A: This should be selected by channel.

Q: **Section 3.17.4** refers to "Rate of change limits exceeded". Is this for instantaneous and/or averaged values?

A: This is for instantaneous values.

Q: **Section 3.17.16** states "The vendor's data logger must allow an operator, with the proper security access, to set an audit or calibration flag." Is this a flag to tell the data logger to perform a calibration, or a flag to indicate that a calibration has occurred? Is this referring to a manual calibration and hence further calibrations should be compared to the result of such a calibration?

Q: **Section 4.4.6** states, "The vendor must discussion of the proposed lines of authority, coordination, and communication to include communication between parties". Please clarify.

A: The section should read, "The vendor must include a discussion of the proposed lines of authority…"

Provide a concise description of how your company proposes to work (communicate) with Ecology.

Q: **Section 4.5**, states, "The vendors proposal must:".   Must what?

A: This phrase will be removed from the document.

Q: **Section 4.6** Testing requires 100% data collection over the network for 30 days. Only failures of legacy (ESC) data loggers and instruments will be excluded. If the test is conducted using DSL modems, routers and PC hardware supplied by the State we suggest that failures in these components also be excluded. Furthermore, power failures at stations should also be excluded. The test of the central should be that is automatically collects data each poll and recovers automatically to collect 100% of the data actually available from the stations. Perhaps a separate station reliability test should be performed to test the new equipment used in the station. We request that Ecology review this requirement.

A: Ecology is agreeable.

Q: **Section 4.6–**Testing requires 100% data collection over the entire network for 30 days. Only failures of legacy (ESC) data loggers and instruments will be excluded. If the test is conducted using DSL modems, routers and PC hardware supplied by the State we suggest that failures in these components also be excluded. Furthermore, power failures at stations should also be excluded. We suggest that the test of the central should be that it automatically collects data each poll and or recovers automatically to collect 100% of the data actually available from the stations.

A: Ecology is agreeable.

Q: **Section 5.2** identifies an Appendix D for submission of financial data. Please provide the location of this appendix.

A: The document may be downloaded at http://www.ecy.wa.gov/programs/air/nwads_rfp.htm

Q: **Section 4.7.2** states, "Describe vendor's approach to volume (e.g. load, stress) testing … and utilize properly functioning data interfaces". What is meant by volume testing of properly function data interfaces?

A: We wish to ensure that, after installation, the new system is ready to process ambient air quality data including polling data, producing reports and properly displaying data via the user interface(s). Testing should incorporate several days of production data volumes to demonstrate that the successful Vendor's staff, Ecology staff, and the new system are prepared for full production.

Q: The Model Information Technology Contract for Software, Section 45 is not listed as required. Yet the RFP document in Section 2.7.1 requires Proof of Liability Insurance and Letter of Credit to be submitted with the proposal. Certain Liability insurance and the Letter of Credit noted in Section 45 would not be feasible for our organization to provide

except at significant cost if available at all. Specifically 45.2.f, Crime coverage and 45.3 which requires Errors and Omissions and Crime Coverage to be kept in force for the term of the contract plus 6 years after the contract is no longer in force are problematic. In addition, a Letter of Credit in the amount of 1 million dollars would need to be issued for the same term, presumable because of the Crime coverage deductible that is noted as not to exceed 1 million. Please clarify which if any of the coverages are required and if for example the Letter of Credit is not required please modify Section 2.7.1 accordingly.

A: Ecology will not require Crime Coverage or Errors and Omission Coverage. We are awaiting advice from our attorney regarding Liability Insurance and the Letter of Credit (i.e. would a company/major party credit report or other alternative be sufficient?)

Q: Of the 83 sites how many of these use the ESC 8800 data loggers and how many use the 8816 data loggers. How many ESC 8816 data loggers does Ecology own? Do any of the air-monitoring sites use more than one data logger?

A: We currently have 80 active sites. Of these 18 have ESC 8800 data loggers and 62 have ESC 8816 data loggers. Ecology owns 65 ESC 8816 data loggers; an additional 12 are owned by local air agencies. One site uses two ESC 8816 data loggers.

Q: Is this RFP only concerned with the current 83 Ambient Monitoring stations? Will there be anymore ambient monitoring stations added to the network as part of this RFP?

A: At this time, Ecology is concerned with only the 83 monitoring stations it has. Other entities (tribes, cities) have expressed some interest in partnering with Ecology, but no agreements have been signed.

Questions with out answers---yet!

Q: **Section 3.5.10** states "... must be able to connect to any instrument remotely and have full functionality as if the operator were sitting at the instrument at a monitoring site or other approved remote location". Is this for devices connected via RS232 only? If not, what other interfaces must be remotely supported? Analog input can't be remotely monitored except for reading the voltage, which could be manually measured on the site.

Q: **Section 3.17.8** indicated loggers should be expandable to 96 channels. What is the largest number of channels now used in any station operated by Ecology or its regional partners? Many device providers indicate capacity in "points" of information, which includes analog in, analog out, digital in and digital out. What is considered a data channel in this requirement? Other organizations have considered analyzer diagnostic parameters as channels in their specifications. In this context, an SO2 instrument would use one channel for the SO2 value and up to 24 diagnostic companion values. Is Ecology considering diagnostics as channels in their specification?

Q: Will Ecology consider applications other than those developed in the .NET framework?